DIN EN 13771-2:2017-11 (E)

Compressors and condensing units for refrigeration - Performance testing and test methods - Part 2: Condensing units

Contents

Page

European foreword 3

1 Scope 4

2 Normative references 4

3 Terms, definitions and symbols 4
3.1 Terms and definitions 4
3.2 Symbols 7
3.3 Refrigerant circuit state points 10

4 Uncertainty of measurement and test conditions 10
4.1 Uncertainty of performance data 10
4.2 Uncertainty of measurement 10
4.3 Test conditions 12

5 General requirements 13
5.1 Test equipment 13
5.2 Calculation methods 13
5.3 Requirements for the selection of test methods 15
5.4 Test procedure 15
5.5 Pressure and temperature measuring points 15
5.6 Oil circulation 16
5.7 Refrigerant composition 16
5.8 Calibration and requirements regarding measurement uncertainty 16
5.9 Source of refrigerant data 17
5.10 Test setup for air cooled condensing units 17

6 Test methods 18
6.1 General 18
6.2 List of test methods 18
6.3 Method A: secondary fluid calorimeter on the suction side 19
6.4 Method B: dry system refrigerant calorimeter on the suction side 20
6.5 Method C: Water cooled condenser calorimeter 22
6.6 Method D: Refrigerant gas flow meter on the suction side 23
6.7 Method E: refrigerant flow meter in the liquid line 24

7 Determination of the power absorbed by the condensing unit 26
7.1 General 26
7.2 Calculation 26

8 Test report 27
8.1 General 27
8.2 Test data 28
8.3 Test results 28
8.4 Overview of test values 28

Bibliography 30